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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,210	10/04/2000	Donald F. Gordon	SEDN/246CIP1	8170

56015 7590 12/31/2008  
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EXAMINER
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SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2424

MAIL DATE	DELIVERY MODE
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12/31/2008

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DONALD F. GORDON, BRIAN FEINBERG,  
EUGENE GERSHTEIN, SADIK BAYRAKERI,  
JOHN P. COMITO, and EDWARD A. LUDVIG

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Appeal 2008-2834  
Application 09/679,210<sup>1</sup>  
Technology Center 2600

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Decided: December 31, 2008

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Before KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO,  
and KARL EASTHOM, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> Application filed October 4, 2000. The real party in interest is Sedna Patent Services, LLC.

## STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1 to 18 and 20 to 23.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

### The Invention

Appellants' invention is directed to a system (Figs. 1A and 1B) and method for efficiently providing an interactive program guide (IPG) to a plurality of terminals 108 in a server-centric information distribution system such as a cable television system (Spec. 1-2; App. Br. 9). More specifically, Appellants' claimed invention is directed to a system and method for delivering an IPG by encoding a plurality of IPG pages, generating multiplexed streams of encoded IPG information, and dynamically controlling the number of transport streams based on available capacity or usage (*i.e.*, the demands from the neighborhood being served by the transport stream generator) (*see* claims 1 and 20; Spec. 2-3; App. Br. 10).

Claim 1, reproduced below, is representative of the subject matter on appeal:

1. A system for providing interactive program guide (IPG), the system comprising:

a plurality of encoding units operative to encode a plurality of IPG pages and generate a plurality of streams, wherein each IPG page is associated with a stream and is assigned a respective packet identifier (PID);

at least one transport stream generator operatively coupled to the plurality of encoding units, each transport stream generator operative to receive and multiplex selected ones of the plurality of streams from one or more encoding units into one or more transport streams; and

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<sup>2</sup> Claim 19 has been canceled.

a session manager coupled to the at least one transport stream generator and operative to direct each transport stream generator to generate the one or more transport streams based on usage.

The Rejections

The Examiner relies upon the following as evidence of unpatentability:

Chaney	US 5,515,106	May 7, 1996
McLaren	US 5,867,208	Feb. 2, 1999
Eyer	US 6,401,242 B1	June 4, 2002 (effectively filed Dec. 15, 1997)
Hendricks	US 6,463,585 B1	Oct. 8, 2002 (filed Apr. 8, 1998)

The following rejections are before us for review:

The Examiner rejected claims 1 to 15, 18, and 20 to 23 under 35 U.S.C. § 103(a) as being unpatentable over Eyer, Hendricks, and Chaney.<sup>3</sup>

The Examiner rejected claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Eyer, Hendricks, and Chaney further in view of McLaren.

Appellants have not separately argued the merits of dependent claims 2 to 15

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<sup>3</sup> The Examiner states in the Final Rejection of June 20, 2005, that an additional reference to Eyer (U.S. Patent No. 5,801,753) is incorporated by reference (Final Rejection 2), and Appellants argue in their Brief that this additional Eyer reference is included in the rejection (*see* Brief 14-15). “Where a reference is relied on to support a rejection, whether or not in a ‘minor capacity,’ there would appear to be no excuse for not positively including the reference in the *statement of the rejection*.” *Application of Hoch*, 428 F.2d 1341, 1342 (CCPA 1970) (emphasis added). The Examiner’s failure to include the additional Eyer reference (U.S. Patent No. 5,801,753) in the statement of the rejection is treated as harmless error since we consider neither the rejection of claims 1 to 15, 18, and 20 to 23, nor the rejection of claims 16 and 17, as relying on this additional Eyer reference.

and 18, and instead rely on the arguments presented with respect to independent claim 1 (*see* App. Br. 14-15; Reply Br. 3). Appellants have not separately argued the merits of dependent claims 16 and 17 with respect to Eyer, and instead rely on the arguments presented with respect to claim 1 (App. Br. 18). Appellants have also not separately argued the merits of dependent claims 21 to 23, and instead rely on the arguments presented with respect to independent claim 20 (*see* App. Br. 15-16). We consider claim 1 as representative of the group consisting of claims 1 to 18, and claim 20 as representative of the group consisting of claims 20 to 23. Thus, claims 2 to 18 stand or fall with representative claim 1, and claims 21 to 23 stand or fall with representative claim 20. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs<sup>4</sup> and the Answers<sup>5</sup> for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

## FINDINGS OF FACT

Findings of fact throughout this decision are supported by a preponderance of the evidence of record. The relevant facts include the following:

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<sup>4</sup> We refer to the Appeal Brief filed November 14, 2005, and the Reply Brief filed August 27, 2007, throughout this opinion.

<sup>5</sup> We refer to the Examiner's Answer mailed February 8, 2006, and the Supplemental Examiner's Answer mailed June 27, 2007, throughout this opinion.

Appellants' Disclosure

1. As indicated *supra*, Appellants describe and claim a system (Figs. 1A and 1B) and method of efficiently providing an interactive program guide (IPG) to a plurality of terminals 108 through distribution nodes 106 by encoding IPG pages, generating multiplexed streams of encoded IPG information (*e.g.*, guide, video, audio, and data streams), and dynamically adjusting the number of transport streams based on available capacity or usage (Spec. 2-3 and 5-8).
2. Original claim 1 describes the at least one transport stream generator as being “operatively coupled to” the plurality of encoding units, and the session manager as being “coupled to” the at least one transport stream generator (claim 1). Appellants' Specification discloses that “[e]ach transport stream generator 130 receives the outputs from one or more encoding and packetizing units 122 and multiplexes the received streams to form one or more transport streams” (Spec. 6), and that “[s]ession manager 112 manages the operation of transport stream generators 126” and “directs the proper transport stream generators 126 to provide the requested IPG pages” (Spec. 9). However, with regard to connection between the transport stream generator and encoding units, and between the session manager and the transport stream generator, the Specification does not define or otherwise explain the phrases *coupled to* or *operatively coupled to*.
3. Appellants recognize the desirability of “efficient and effective techniques to deliver interactive program guide[s][sic] to a large number of viewers” (Spec. 2).

Eyer

4. Eyer teaches a system (Fig. 2) and method for providing an interactive program guide which is “optimized for delivery efficiency” (col. 3, l. 28), “thereby maximizing the use of the available bandwidth” (col. 21, l. 67 to col. 22, l. 1).
5. Eyer teaches that the IPG system (Fig. 2) has a plurality of encoding units (220, 230, MPEG-2 encoders 1-N), at least one transport stream generator (MUX/MOD 250) operatively coupled to the encoding units, and a session manager (IPG translator 225 and SAC 240) coupled to the transport stream generator to generate transport streams (col. 7, l. 66 to col. 8, l. 32). Eyer also teaches that IPG data is associated with a packet identifier or PID (col. 10, ll. 55-56).
6. Eyer teaches that the IPG data sent to session manager (225 and 240) from IPG server 210 includes “global and regional IPG data” in “IPG data bundles” (*see* col. 10, ll. 10-15) and can be “common data, such as sources, schedules, titles and descriptions for satellite channels and network programming” (col. 9, ll. 41-43). Eyer teaches that the session manager (225) then transmits “IPG messages” (col. 8, ll. 4-5).

Hendricks

7. Hendricks teaches a method for providing an IPG from a transmission source to a plurality of terminals, including dynamically adjusting the number of transport streams transmitted to the terminals based on demand and capacity (Figs. 1, 17, 19-22; col. 19, ll. 49-62; col. 55, l. 64 to col. 56, l. 14; *see* Ans. 3-4 and Final Rejection 10-12). Hendricks specifically

discloses “dynamic menu allocation” and “dynamic bandwidth allocation” (col. 19, ll. 56-58), as well as “dynamic menu capacity allocation” (col. 56, l. 13).

## ISSUES

### First Issue

Appellants primarily argue that Eyer “fails to disclose the claimed session manager *coupled to* a transport stream generator and the transport stream generator *coupled to* encoding units” as recited in representative claim 1 (App. Br. 16) (emphasis added).

The Examiner contends that the various processing elements in Eyer, including the transport stream generator (MUX/MOD 250), session manager (IPG translator 225 and SAC 240), and encoding units (220 and 230) are *coupled to* each other as evidenced by Figure 2 and the accompanying text at column 7, line 66 to column 8, line 32 (Ans. 4).

Thus, the first issue before us is: Did the Examiner err in determining that Eyer teaches or suggests a transport stream generator being *operatively coupled to* encoding units and a session manager being *coupled to* the transport stream generator as claimed in representative claim 1?

### Second Issue

Appellants also argue that Eyer does not encode IPG pages (Reply Br. 2-3).

The Examiner contends that the encoding units (220, 230, MPEG-2 encoders shown in Fig. 2 and discussed at col. 5, ll. 44-67 and col. 8, ll. 16-32) encode a plurality of IPG pages (Final Rejection 2).

As discussed *infra*, the ordinarily skilled artisan would implicitly understand that an encoder encodes input data and outputs encoded data, and that a need exists to encode both IPG data (to protect proprietary data from theft) as well as audio/video data (to protect movie content from theft). The ordinarily skilled artisan would also understand that a page could consist of plural amounts of data, and therefore plural IPG data could be considered to make up an IPG page.

Thus, the second issue before us is: Did the Examiner err in determining that Eyer teaches or suggests encoding IPG pages?

Third Issue

Lastly, Appellants argue that Eyer “fails to disclose the claimed transport streams being *dynamically adjusted* before being transmitted to the terminals” as recited in representative claim 20, and that Hendricks and Chaney also fail to disclose this limitation (App. Br. 15-16) (emphasis added).

The Examiner contends that Hendricks, and not Eyer, teaches dynamic adjustment of the number of transport streams based on IPG demands (Ans. 5).

Thus, the third issue before us is: Did the Examiner err in determining that the combination of Eyer, Hendricks, and Chaney teaches or suggests *dynamically adjusting* the number of transport streams to be transmitted to the plurality of terminals as claimed in representative claim 20?

PRINCIPLES OF LAW

The Examiner bears the initial burden of presenting a prima facie case of obviousness, and Appellants have the burden of presenting a rebuttal to the prima facie case. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

“During examination, ‘claims ... are to be given their broadest reasonable interpretation consistent with the specification, and ... claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.’” *In re Am. Acad. of Sci. Tech. Cir.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *In re Morris*, 127 F.3d 1048, 1053-54 (Fed. Cir. 1997).

Additionally, “[t]hough understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.” *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

## ANALYSIS

We agree with the Examiner’s findings of fact and conclusions of obviousness (Final Rejection 2-13; Ans. 3-5; Suppl. Ans. 4-7), and adopt them as our own, along with some amplification of the Examiner’s explanation of the teachings of Eyer (*see* Findings of Fact 4-6) and Hendricks (*see* Finding of Fact 7).

*First Issue: Did the Examiner err in determining that Eyer teaches or suggests a transport stream generator being operatively coupled to encoding units and a session manager being coupled to the transport stream generator as claimed in representative claim 1?*

Representative claim 1 recites in pertinent part, “at least one transport stream generator *operatively coupled to* the plurality of encoding units,” and “a session manager *coupled to* the at least one transport stream generator” (claim 1) (emphasis added).

Because “claims ... are to be given their broadest reasonable interpretation consistent with the specification, and ... claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art” (*Am. Acad. of Sci. Tech. Cir.*, 367 F.3d at 1364; *Morris*, 127 F.3d at 1053-54), one of ordinary skill in the art would interpret the phrases *coupled to* and *operatively coupled to* in representative claim 1 in light of the Specification. However, Appellants do not provide an explicit definition for *coupled to* or *operatively coupled to* in the Specification (Finding of Fact 2). Nonetheless, Appellants’ Specification uses the phrase *coupled to* in a manner that indicates the term is broad enough to be reasonably interpreted as *directly or indirectly coupled to*. Appellants even chose to use the language *operatively coupled to* in claim 1. Indeed, the failure to use the term “*operatively coupled to*” in claim 1 in describing the relationship between the session manager and the transport stream generator indicates that the term is broader than the term “*coupled to*” used to describe the relationship between the transport stream generator and the encoding units. Thus, the recitation in claim 1 of the term *coupled to* broadly encompasses directly, indirectly, and/or operatively or inoperatively connected elements.

Because “it is important not to import into a claim limitations that are not a part of the claim” and “a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment” (*Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d at 875), the term *coupled to* is not limited to the embodiment of Figure 1A of the Specification which appears to show direct connections between transport stream generator 130 and encoding units 122, and between session manager 112 and

transport stream generator 130 (App. Br. 16). As discussed above, the phrase *coupled to* can reasonably be interpreted as meaning *directly or indirectly connected to, or operatively or inoperatively connected to*. The phrases *coupled to* and *operatively coupled to* as claimed and as broadly disclosed in the Specification include indirectly connected or operatively connected arrangements as taught by Eyer.

The Examiner is correct that Eyer's transport stream generator (MUX/MOD 250), session manager (IPG translator 225 and SAC 240), and encoding units (220 and 230) are *coupled to* each other as evidenced by Figure 2 and the accompanying text at column 7, line 66 to column 8, line 32 (*see* Ans. 4-5). Appellants' argument that Eyer fails to disclose the *coupled to* arrangements between system elements as set forth in representative claim 1 is unpersuasive (*see* App. Br. 14). Appellants' arguments that Hendricks, Chaney, and McLaren fail to disclose these claim elements *coupled to* each other fails for similar reasons (*see* App. Br. 14-16), and also because the Examiner relies on Eyer as teaching the *coupled to* relationship, and not the other applied references.

In view of the foregoing, Appellants have not shown that the Examiner erred in interpreting the term "coupled to" in claim 1 as broadly encompassing the connections disclosed by Eyer in Fig. 2 and column 7, line 66 to column 8, line 32. *Second Issue: Did the Examiner err in determining that Eyer teaches or suggests encoding IPG pages?*

Appellants contend that Eyer does not encode IPG *pages* (Reply Br. 2-3), and the Examiner contends that Eyer's encoding units (220, 230, MPEG-2

encoders shown in Fig. 2 and discussed at col. 5, ll. 44-67 and col. 8, ll. 16-32) encode a plurality of IPG pages (Final Rejection 2).

Eyer teaches encoding IPG *data* and producing IPG *messages* (Finding of Fact 6). Although Eyer does not use the terminology IPG *pages*, it would have been obvious to one of ordinary skill in the art at the time of Appellants' invention that an IPG page could consist of IPG data. A large amount of textual data could cover an entire page, thus comprising an IPG *page*. Inasmuch as Appellants have failed to define *page* in the Specification, including the original claims, and inasmuch as “‘claims ... are to be given their broadest reasonable interpretation consistent with the specification’” (*Am. Acad. of Sci. Tech. Cir.*, 367 F.3d at 1364; *Morris*, 127 F.3d at 1053-54), we conclude that Eyer teaches or suggests IPG *pages*.

Eyer explicitly teaches that the IPG data includes “data, such as sources” (Finding of Fact 6). One of ordinary skill in the art of television and/or satellite broadcasting systems employing interactive program guides would know that *sources* could include any programming source such as audio and/or video for television or cablevision programs (*e.g.*, movies, shows, documentaries, etc.). In addition, as indicated *supra*, the ordinarily skilled artisan would implicitly understand that an *encoder* encodes input data and outputs encoded data, and that a need exists to encode both IPG data (to protect proprietary data from theft) as well as audio/video data (to protect movie content from theft). Thus, one of ordinary skill in the art would understand Eyer to teach or suggest encoding IPG pages which could include IPG data, programming source data, message data, etc.

In view of the foregoing, Appellants have not shown that the Examiner erred in determining that Eyer teaches or suggests encoding IPG pages.

*Third Issue: Did the Examiner err in determining that the combination of Eyer, Hendricks, and Chaney teaches or suggests dynamically adjusting the number of transport streams to be transmitted to the plurality of terminals as claimed in representative claim 20?*

Hendricks teaches a method for providing an IPG from a transmission source to a plurality of terminals, including *dynamically adjusting* the number of transport streams transmitted to the terminals based on demand and capacity (Finding of Fact 7).

Appellants argue that Eyer “fails to disclose the claimed transport streams being *dynamically adjusted* before being transmitted to the terminals” as recited in representative claim 20, and that Hendricks and Chaney also fail to disclose this limitation (App. Br. 15-16) (emphasis added).

The Examiner is correct that Hendricks, and not Eyer, teaches dynamic adjustment of the number of transport streams based on IPG demands (Ans. 5; Finding of Fact 7).

Appellants cannot show non-obviousness by attacking references individually where rejections are based on a combination of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)). In the instant case, Appellants’ argument that Eyer does not teach dynamic adjustment is unpersuasive, since Hendricks was relied upon by the Examiner as teaching this limitation (*see* Ans. 5; *see also* Final Rejection 3).

For the foregoing reasons, Appellants have not shown that the Examiner erred in determining that the combination of Eyer, Hendricks, and Chaney teaches or suggests the *dynamically adjusting* limitation of representative claim 20.

Summary

One of ordinary skill in the art would have found Appellants' claimed subject matter in representative claims 1 and 20 obvious in light of the combination of Eyer, Hendricks, and Chaney. Appellants have not overcome the Examiner's prima facie case of obviousness with respect to these claims. Appellants' arguments throughout the briefs do not convince us of any error in the Examiner's positions in the rejections. *Oetiker*, 977 F.2d at 1445. Accordingly, we sustain the rejection of representative claims 1 and 20. Claims 2 to 18 and 20 to 23 fall with respective representative claims 1 and 20, as previously discussed.

For all of the above reasons, Appellants' arguments have not persuaded us of error in the Examiner's rejections of claims 1 to 15, 18, and 20 to 23 under 35 U.S.C. § 103(a) as being unpatentable over Eyer, Hendricks, and Chaney, or of claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Eyer, Hendricks, and Chaney further in view of McLaren. We sustain the Examiner's rejections.

### CONCLUSIONS OF LAW

Appellants have not shown that the Examiner erred in determining that Eyer teaches or suggests a transport stream generator being *operatively coupled to* encoding units and a session manager being *coupled to* the transport stream generator as claimed in representative claim 1.

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Application 09/679,210

Appellants have not shown that the Examiner erred in determining that Eyer discloses encoding IPG pages.

Appellants have not shown that the Examiner erred in determining that the combination of Eyer, Hendricks, and Chaney teaches or suggests *dynamically adjusting* the number of transport streams to be transmitted to the plurality of terminals as claimed in representative claim 20.

### ORDER

The decision of the Examiner to reject claims 1 to 18 and 20 to 23 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

### AFFIRMED

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